

REMARKS

This amendment responds to the Office Action dated September 2, 2004. The term “Air-O-Cell” in the specification has been amended to properly designate it as a trademark by capitalizing it and accompanying the term with the generic terminology. Claim 4 has been amended to place it in proper dependent form. Claims 3, 4, 7, 9, and 10 have been amended to more clearly define and particularly point out the claimed subject matter of the invention. Support for these claim amendments (“dispersing an aerosol using an electrical diffuser”) can be found on page 13, paragraph 45. Applicants respectfully submit that no new material has been added.

I. Response to Restriction Requirement

Applicants affirm that on August 9, 2004, an election was made without traverse to prosecute the “process” invention of Group II, Claims 3-10. Accordingly, applicants request that Claims 1 and 2 be withdrawn from further consideration.

II. Objection under 37 CFR 1.75(c)

The Examiner objected to Claim 4 under 37 CFR 1.75(c), as being of improper dependent form for being dependent upon a cancelled claim. Applicants have amended Claim 4 to place it in proper dependant form. Applicants respectfully request that this rejection be withdrawn in view of the present amendment to Claim 4.

III. Specification

The Examiner indicated that applicants use of the trademark AIR-O-CELL® in the patent application should be capitalized and identified as a trademark. Applicants amended the specification to properly designate the trademark AIR-O-CELL® wherever it appears in the

application, as well as, identified the AIR-O-CELL® product according to its generic description. Applicants respectfully request that this rejection be withdrawn in view of the present amendment to the specification.

IV. Rejection under 35 U.S.C. §112

The Examiner has rejected Claims 4-10 under 35 U.S.C. 112, as being indefinite in the use of the recitation “predetermined period of time” and for failing to particularly point out and distinctly claim the subject matter of the invention. Claims 4, 7, 9, and 10 have been amended to more clearly define and particularly point out the claimed subject matter. As amended, the recitation “predetermined period of time” has been deleted from Claims 4, 7, 9, and 10.

Applicants respectfully request that this rejection be withdrawn in view of the present amendment to Claims 4, 7, 9, and 10.

V. Rejection under 35 U.S.C. §103

The Examiner has rejected Claims 3-10 under 35 U.S.C. §103 (a) as obvious over the article entitled “Method to Study Antimicrobial Effects” by Benjilali *et al.* (herein the “Benjilali article” or “Benjilali”) in view of published application no. US 2003/0156974 to Haas (herein “Haas 974”) and Romano *et al.* (U.S. PATENT NO. 6,103,683) (herein “Romano 683”). The Examiner states that, from the teachings of these references, the invention as a whole is prima facie obvious to one of ordinary skill in the art at the time the invention was made. Specifically, the Examiner states that Benjilali discloses the use of thyme oil in mold eradication. The Examiner further states that although Benjilali differs from the claimed invention in that Benjilali does not teach the use of spraying the thyme oil in a dwelling to eradicate mold, Haas 974 teaches the prevention of mold whereby an antimicrobial solution is sprayed inside a dwelling

and Romano 683 discloses using an antimicrobial composition preferably from 0.006% to 10% thyme oil. The Examiner therefore concluded that it would have been obvious for one of ordinary skill in the art to have utilized the spraying method disclosed in Haas 974 and the thyme oil antimicrobial solutions disclosed in the Benjilali article and Romano 683 in order to arrive at the process of the presently claimed invention.

As amended, independent Claim 3 of the present invention relates to “a process for eradication of mold in a dwelling comprising dispersing an **aerosol using an electrical diffuser** of a solution of about **one part by volume of thyme essential oil and 32 parts of water** in said dwelling.” Optionally, the above process can be conducted including substantially sealing said dwelling after dispersal of said thyme solution. Preferably, the aerosol thyme solution is misted on substantially all the dwelling surfaces and/or in the dwelling’s ventilation ducts. Optionally, an aerosol of a second solution of about **one part by volume thyme essential oil and 64 parts of water and one part by volume of substantially equal amounts of the essential oil of: cajeput, cedarwood, citronella, clove, cypress, fir-needle, eucalyptus, garlic, lavender, lemon, lemongrass, marjoram, niaouli, onion, orange, oregano, patchouli, peppermint, rosemary, rosewood, tea tree, y-lang and vetivert** can be dispersed in said dwelling.

The Applicants respectfully submit that Benjilali studied the antifungal properties of six essential oils, one of which was thyme oil. The essential oils were extracted by steam distillation and the essential oil was tested by placing pure, undiluted, oil on filter paper under a petri dish growing various types of mold. The essential oil evaporated from the filter paper into the atmosphere of the closed petri dish, where it was active in its volatile phase.

Although the Benjilali article discloses the antifungal properties inherent in thyme oil,

Benjilali does not discuss thyme oil's use in a large space such as a dwelling, whereby the oil must be **mixed in solution**. Unlike the presently claimed invention, Benjilali does not disclose or suggest that thyme oil can be mixed with water to be used as a water/oil **emulsion** so that the oil/water emulsion can be dispersed throughout a **dwelling** as a **aerosol** through the use of an **electrical diffuser**.

Applicants respectfully submit that Romano 683 relates to a disinfecting solution comprising 0.1% to 15% hydrogen peroxide, an essential oil (such as thyme oil), and an amphoteric surfactant. Romano 683 discloses that the resulting disinfecting solution may optionally be diluted with water but may also be used in its neat form (undiluted form) (see column 11, lines 41-44). Water is not a required element of the Romano 683 disinfecting solution. Furthermore, Romano 683 does not teach dispersal of an aerosol of the disinfecting solution using an electric diffuser. The spray dispenser disclosed in Romano 683 is a commonly used household spray-type dispenser whereby the composition in the spray bottle is directed through the dispenser head via energy communicated to a pumping mechanism by the user. (see Column 10, lines 52-67 and Column 11, lines 1-6).

In the presently claimed invention, **water is an essential element** of the invention. The claimed process for the eradication of mold in a dwelling requires that 1 part unsolubilized thyme oil is mixed with 32 parts water to form an oil/water emulsion (approximately 3% thyme and 97% water). This thyme oil/water solution is then **dispersed as an aerosol using an electrical diffuser**. The presently claimed invention does not solubilize thyme oil in hydrogen peroxide and a surfactant as claimed in Romano 683.

Unlike the presently claimed invention, Benjilali and Romano 683 do not disclose or

suggest that unsolubilized thyme oil can be mixed with water to be used as a water/oil **emulsion** so that the oil/water emulsion can be dispersed throughout a **dwelling** as an **aerosol** through the use of an **electrical diffuser**. As amended, the present invention claims a process of eradicating mold in a dwelling whereby an **aerosol** of the thyme essential oil solution is dispersed in said dwelling using an **electrical diffuser**. The specification of the presently claimed invention teaches the importance of dispersing said thyme oil solution as an aerosol spray using an electrical diffuser (see specification, page 13, paragraph 45). The thyme oil/water emulsion must be dispersed as an aerosol because the thyme oil is insoluble in the water and will immediately separate into two phases when mixed together. A traditional spray mechanism would be unsuitable for use with the presently claimed invention. The aerosol of the thyme oil/water solution, claimed in the present invention, is produced by an electrical diffuser producing a barely visible stream of micronized essential oil droplets. The diffused aerosol solution forces air into the thyme oil/water solution, mixing the oil and water in an emulsion and breaking the oil particles into very small particles. The small particles are then sprayed as very small aerosol thyme oil/water emulsion droplets which when released attach readily to the molecules in the air. These emulsion droplets travel lightly and easily to all accessible areas of the dwelling to eradicate mold growth.

Furthermore, Applicants respectfully submit that, although Haas 974 teaches the prevention of mold in dwellings whereby a antimicrobial treatment fluid is sprayed inside a dwelling, it does not disclose the process of dispersing a aerosol of thyme oil and water with an electrical diffuser.

For an invention to be obvious, all claim limitations must be considered. The Federal

Circuit held that a reference did not render the claimed combination prima facie obvious in *In re Fine*, because, inter alia, the Examiner ignored a material claimed temperature limitation which was absent from the reference. 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). In variant form, the Federal Circuit held want of prima facie obviousness in that:

The mere absence [from the reference] of an explicit requirement [of the claim] cannot reasonably be construed as an affirmative statement that [the requirement is in the reference].

In re Evanega, 829 F.2d 1110, 4 USPQ2d 1249 (Fed. Cir. 1987).

Applicants respectfully submit that this combination of references does not fairly suggest the presently claimed invention. Proper motivation does not exist to lead one of ordinary skill in the art to combine these three references in the manner necessary to arrive at the presently claimed invention.

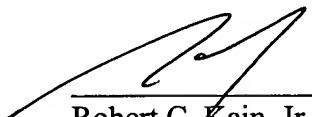
Furthermore, Applicants respectfully submit that combining the Benjilali reference with the Haas 974 and the Romano 683 reference does not result in the presently claimed invention. As amended, the present invention clearly requires a thyme oil and water emulsion dispersed in an aerosol using an electrical diffuser, inside a dwelling. Moreover, none of the cited references disclose that above process may be conducted including substantially sealing said dwelling after dispersal of said thyme solution or that the aerosol thyme solution can be misted in the dwelling's ventilation ducts. Lastly, none of the cited references disclose using an aerosol of a second solution of about **one part by volume thyme essential oil and 64 parts of water and one part by volume of substantially equal amounts of the essential oil of: cajeput, cedarwood, citronella, clove, cypress, fir-needle, eucalyptus, garlic, lavender, lemon, lemongrass, marjoram, niaouli, onion, orange, oregano, patchouli, peppermint, rosemary,**

rosewood, tea tree, y-lang and vetivert can be dispersed in said dwelling.

Accordingly, the Applicants respectfully submit that the presently claimed invention is neither disclosed nor suggested by Benjilali *et al.* in view of Haas *et al.* and Romano *et al.* (U.S. PATENT NO. 6,103,683). It is respectfully submitted that the presently claimed invention is not prima facie obvious in view of these references.

In view of the above amendments filed, herewith, Applicants respectfully submit that each of these rejections have been overcome. It is respectfully requested that these rejections be withdrawn and Claims 3-10 be allowed.

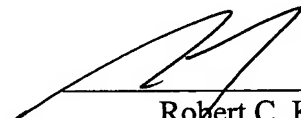
Respectfully submitted,



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